Geometry honors problem sets

Special right triangles and coordinate geometry

***Solve for all variables. Fine exact answers where possible. Round to the nearest hundredth where necessary.***

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1. 2. 3.





4. 5. 6.

7. The diagonals of a rectangle are 8 units long and intersect at a 60 degree angle. Find the dimensions

of the rectangle.

8. Supply the missing coordinates to prove: The segments that join the midpoints of opposite sides of

any quadrilateral bisect each other. Let H, E, A, and R be the midpoints of the sides of quadrilateral

 SOMK.

a) R has coordinates (\_\_\_\_\_, \_\_\_\_\_)

b) E has coordinates (\_\_\_\_\_, \_\_\_\_\_)

c) The midpoint of  has coordinates (\_\_\_\_\_, \_\_\_\_\_)

d) A has coordinates (\_\_\_\_\_, \_\_\_\_\_)

e) H has coordinates (\_\_\_\_\_, \_\_\_\_\_)

f) The midpoint of  has coordinates (\_\_\_\_\_, \_\_\_\_\_)

g) Because (\_\_\_\_\_, \_\_\_\_\_) is the midpoint of both  and

,  and  bisect each other.